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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,023	12/29/2000	G. Ian Rowlandson	31-CD-5530	7713

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EXAMINER

GOTTSCHALK, MARTIN A

ART UNIT	PAPER NUMBER
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3626

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,023

Applicant(s)

ROWLANDSON, G. IAN

Examiner

Martin A. Gottschalk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/24/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-27 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, 7, 11, 12, 15, 16, 19-21, 23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Bayne (PG Pub# US 2005/0060198, hereinafter Bayne).

- A. As per claim 1, the admitted prior art discloses a method for scheduling an emergency procedure, comprising the steps of:

acquiring (Bayne: [0086]; [0089], reads on "...retrieves medical records...") an electrocardiogram (Bayne: [0037], In 4-7) record for a particular patient;

determining that said particular patient has a high probability of acute coronary syndrome based on an automated analysis of data in said electrocardiogram record (Bayne: [0073]. Note in particular the example of a cardiologist as clinician, suggesting

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the use of electrocardiogram record data. Further note the use of an expert system software module for performing triage. The Examiner considers an expert system operating on electrocardiogram data to be a form of automated analysis that determines whether or not a patient has a high probability of acute coronary syndrome);

automatically routing a communication (Bayne: Fig. 1, item 114 - the "triage processing block"; [0032], Ins 1-10; [0078]), in particular Ins 9-11, wherein the claim reads on "...an emergency request automatically generated in response to a condition..." to a cardiologist on call (Bayne: [0073], Ins 11-12), said communication comprising at least results of said automated analysis (Bayne: [0089], Ins 1-5, reads on "...retrieving the patient's most updated medical records.");

in response to a predetermined message from the cardiologist, automatically scheduling an emergency procedure at an emergency coronary treatment facility.

(Bayne: [0098]. The Examiner considers utilizing "...the clinician device to complete an on-line admission process..." to be a form of scheduling. It is further noted that the conditional statement "...if the patient's condition warrants..." includes needing an emergency procedure. The Examiner further considers a "...local hospital..." to be a form of an emergency coronary treatment facility).

B. As per claim 4, Bayne discloses a method wherein said automatic routing step is performed via a wireless communication channel (Bayne: Fig. 1, item 118; [0033], Ins 6-9).

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C. As per claim 5, Bayne discloses a method wherein said automatic scheduling step is performed via a network (Bayne: [0043], Ins 3-7).

D. As per claims 7, Bayne discloses a method wherein said automatic scheduling step comprises the steps of

accessing a respective schedule for each of a plurality of emergency coronary treatment facilities (Bayne: Fig. 1, item 116 - "pre-scheduled appointment block"; [0034].

The Examiner considers that this block could be programmed to access the schedules of the treatment facilities. See also Fig. 1, item 136 - "local hospital admissions";

[0040]. Note that communication with local hospital admissions resources would provide access to schedules for the treatment facilities within the hospitals.), and

selecting an emergency coronary treatment facility which has performed a number of said emergency procedures greater than a predetermined threshold number (Bayne: [0050]. Note that "...coordinating levels of service," is stated as a purpose of the local hospital admissions link. The Examiner considers emergency coronary treatment to be an example of a level of service in need of coordination. See also [0073]. Note the triage processing block's capacity to determine "...the appropriate clinician type and equipment required to treat the patient's reported condition." The Examiner considers selecting an appropriate facility for surgery to be a form of such a determination. Furthermore, the availability of the type of surgery to be performed at a facility, and the fact that the surgery has been performed there a minimum number of times would be inputs to the system to allow this determination to be made).

E. As per claim 11, Bayne discloses a method, wherein said automatic scheduling step comprises the step of automatically notifying staff members on call at said emergency coronary treatment facility regarding the scheduled procedure (Bayne: [0098], reads on "...utilize the clinician device to complete an on-line admission process...").

F. As per claims 12 and 16; 15 and 19; 20, 21; 23 and 24, they are system claims which repeat the same limitations of claims 1; 11; 4, 5; and 7, the corresponding method claims, as a collection of elements as opposed to a series of process steps. Since the teachings of Bayne disclose the underlying process steps that constitute the methods of claims 1; 11; 4, 5; and 7, it is respectfully submitted that they provide the underlying structural elements that perform the steps as well. As such, the limitations of claims 12 and 16; 15 and 19; 20, 21; 23 and 24 are rejected for the same reasons given above for claims 1; 11; 4, 5; and 7.

The particular correspondence of the claims are as follows:

Claim 1 corresponds to claim 12.

Claim 1 corresponds to claim 16.

Claim 11 corresponds to claim 15.

Claim 11 corresponds to claim 19.

Claim 4 corresponds to claim 20.

Claim 5 corresponds to claim 21.

Claim 7 corresponds to claim 23.

Claim 7 corresponds to claim 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2, 3, 6, 8-10, 13, 14, 17, 18, 22, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayne as applied to claim 1 above, and further in view of the admitted prior art in the current application (PG Pub# 2002/0087355; hereinafter "the admitted prior art" or APA).

A. As per claims 2 and 3 Bayne fails to disclose a method wherein (Claim 2) said emergency coronary treatment facility is a catheterization lab; and

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(Claim 3) said emergency procedure is percutaneous transluminal coronary angioplasty.

However, this feature is well known in the art as evidenced by the teachings of the admitted prior art.

In particular, the admitted prior art discloses that a catheterization lab is an emergency coronary treatment facility for performing procedures such as the percutaneous transluminal coronary angioplasty, or PTCA (APA: [0017]).

It would have been obvious to one skilled in the art at the time of the invention to modify the automated scheduling features taught by Bayne by incorporating the teachings of the admitted prior art. The motivation of this combination would have been to improve the ability of patients to quickly obtain medical care for acute conditions (Bayne: [0008]).

B. As per claim 6, Bayne discloses a method wherein said automatic scheduling step comprises the steps of

accessing a respective schedule for each of a plurality of emergency coronary treatment facilities (Bayne: Fig. 1, item 116 - "pre-scheduled appointment block"; [0034]. The Examiner considers that this block could be programmed to access the schedules of the treatment facilities. See also Fig. 1, item 136 - "local hospital admissions"; [0040]. Note that communication with local hospital admissions resources would provide access to schedules for the treatment facilities within the hospitals.), and

selecting an emergency coronary treatment facility (Bayne: [0050]. Note that "...coordinating levels of service," is stated as a purpose of the local hospital admissions link. The Examiner considers an emergency coronary treatment to be an example of a level of service in need of coordination.)

Bayne fails to disclose
an emergency coronary treatment facility having an optimum time-to-treatment.
However, this feature is well known as evidenced by the teachings of the
admitted prior art.

The admitted prior art teaches the importance of minimizing time-to-treatment in lowering the mortality rate of the PTCA procedure (APA: [0017], Ins 8-23).

The motivation to combine the teachings of Bayne and the admitted prior art are the same as provided above for claim 6 and are incorporated herein.

C. As per claim 8, Bayne fails to disclose a method wherein
said automated analysis comprises performing a serial comparison of current
and previous electrocardiogram records of said particular patient to determine whether
a new left bundle branch block is present.

However, this feature is well known as evidenced by the teachings of the
admitted prior art.

The admitted prior art teaches the existence of serial comparison programs
(APA: [0003]), that they compare current and previous electrocardiogram records of a

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particular patient (APA: [0004]), and the utility of serial comparison (APA: [0012]-[0014]).

The motivation to combine the teachings of Bayne and the admitted prior art are the same as provided above for claim 6 and are incorporated herein.

D. As per claims 9 and 10, the teachings of Bayne suggest utilization of expert system software to perform diagnosis (Bayne: Fig. 4, item 418, and [0073], Ins 13-15).

Bayne fails to explicitly disclose a method wherein said automated analysis comprises the steps of:

(Claim 9) generating diagnostic statements as a function of data in an electrocardiogram record of said particular patient; and

determining whether the number of generated diagnostic statements belonging to a predetermined diagnostic classification equals at least a predetermined threshold number. And

(Claim 10) said diagnostic classification identifies diagnostic statements associated with acute coronary syndrome.

However, these features are well known in the art as evidenced by the admitted prior art.

The admitted prior art discloses the existence of expert software tools (APA: [0005]-[0011]) to generate diagnostic statements (APA: [0009]) and the utility of these tools in being "...able to identifying patients who have a high probability of acute coronary syndrome..." (APA: [0017], Ins 2-4, read on by claim 10).

The motivation to combine the teachings of Bayne and the admitted prior art are the same as provided above for claim 6 and are incorporated herein.

E. As per claims 13 and 17; 14 and 18; 22, and 25-27, they are system claims which repeat the same limitations of claims 2; 3; 6, and 7-9, the corresponding method claims, as a collection of elements as opposed to a series of process steps. Since the teachings of Bayne disclose the underlying process steps that constitute the methods of claims 2; 3; 6, and 7-9, it is respectfully submitted that they provide the underlying structural elements that perform the steps as well. As such, the limitations of claims 13 and 17; 14 and 18; 22, and 25-27 are rejected for the same reasons given above for claims 2; 3; 6, and 7-9.

The particular correspondence of the claims are as follows:

Claim 2 corresponds to claim 13.

Claim 2 corresponds to claim 17.

Claim 3 corresponds to claim 14.

Claim 3 corresponds to claim 18.

Claim 6 corresponds to claim 22.

Claim 7 corresponds to claim 25.

Claim 8 corresponds to claim 26.

Claim 9 corresponds to claim 27.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not relied upon patent prior art discloses a method and system for scheduling medical appointments and procedures (US Pat# 6,345,260), an expert system for medical diagnosis (US Pat# 5,517,405), and a method and system for emergency medical dispatch related to cardiac problems (US Pat# 6,004,266). The cited but not relied upon non-patent literature discloses expert systems used for scheduling cardiac surgery (Bharadwaj, Sauer).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin A. Gottschalk whose telephone number is (571) 272-7030. The examiner can normally be reached on Mon - Fri 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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